CLAIMS

1. A vibrating machine, for extracting, mixing and separating organic and inorganic materials, both in liquid and powder form, characterized in that said vibrating machine comprises two supporting shoulders adapted to support a plurality of test tubes, each said supporting shoulder being rigidly coupled to a cam follower affected by a cam in turn driven by a motor, to cause said test tube supporting shoulders to perform a rectilinear symmetrically opposite reciprocating movement.

2. A vibrating machine, according to claim 1, characterized in that said supporting shoulders are coupled to a pair of parallel guides, rigid with the framework of said vibrating machine.

3. A vibrating machine, according to claim 1, characterized in that said motor is an electronically controlled variable speed electric motor.

4. A vibrating machine, according to claim 1, characterized in that said motor comprises a motor shaft on which is mounted a pulley, thereon is entrained a transmission belt rotatively driving a second pulley keyed on a second shaft supporting said cam.

5. A vibrating machine, according to claim 4, characterized in that said cam is a desmodromic cam.

6. A vibrating machine, according to claim 5, characterized in that said desmodromic cam has an inner contour and an outer contour, thereon

respectively slide inner follower rollers and outer follower rollers.

7. A vibrating machine, according to claim 6, characterized in that an inner follower roller is pivoted, together with a respective outer follower roller, to an arm rigid with a said supporting shoulder, whereas the other inner follower roller is pivoted, together with a respective outer follower roller, to a second arm rigid with the second supporting shoulder.

8. A vibrating machine, according to claim 4, characterized in that said cam is a non-desmodromic cam.

9 A vibrating machine, according to claim 8, characterized in that said non-desmodromic cam comprises a single outer contour, thereon slide two cam followers associated with respective arms connected to said supporting shoulders, said supporting shoulders being in turn connected by a pair of return springs, allowing the cam follower to follow the cam contour.